MARY RIVER PROJECT

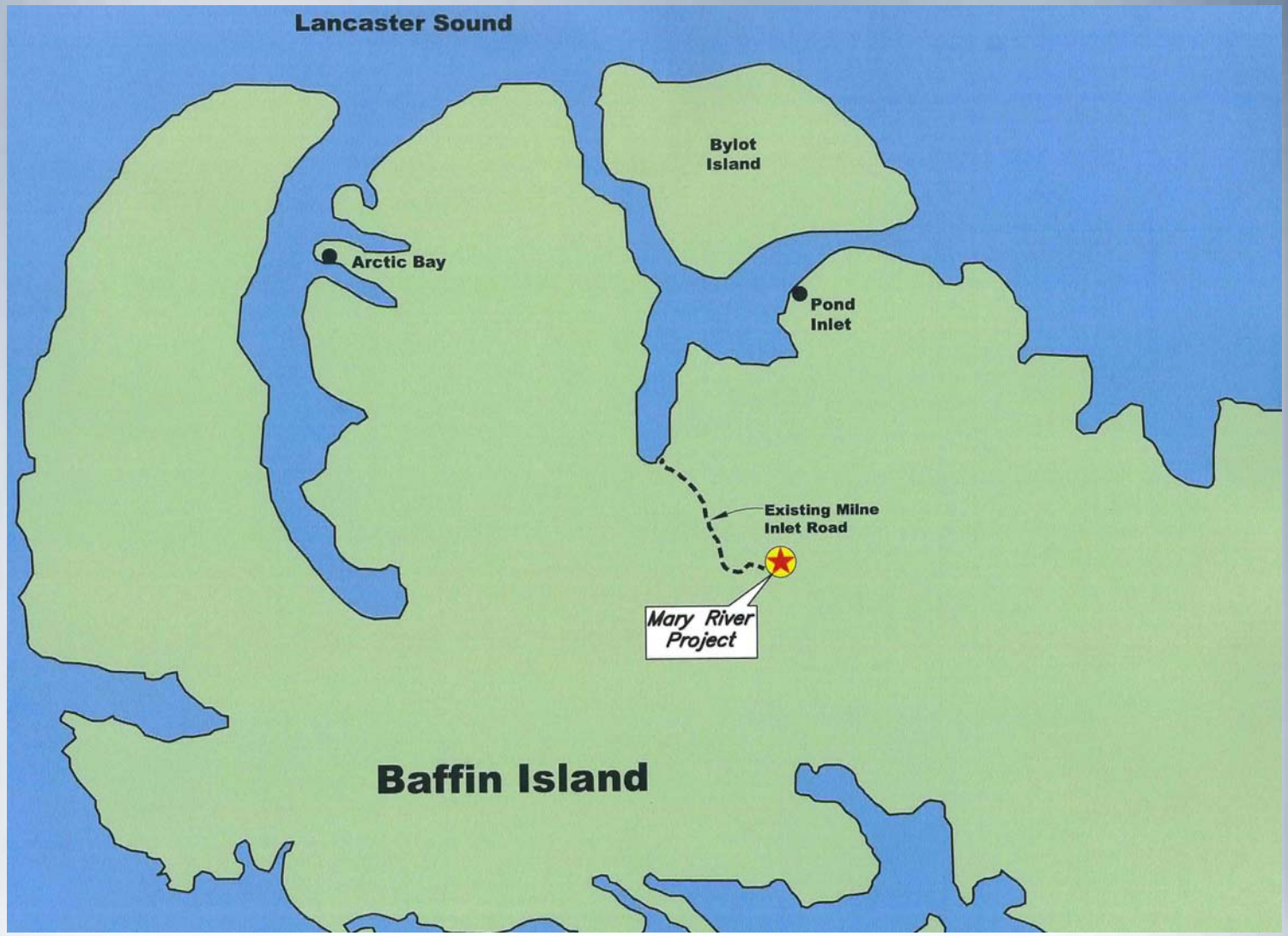
PROPOSED BULK SAMPLING PROGRAM

BAFFINLAND IRON MINES CORPORATION

Outline

- Introduction to the Mary River Project
- Bulk Sampling Program – purpose, overview, schedule
- Bulk Sample Mine Plan
- Temporary Facilities
- Road Upgrades
- Supporting baseline studies and permitting
- Consultation
- Training opportunities
- Health and safety
- Environmental management plans
- Questions / discussion

Mary River Project – Location

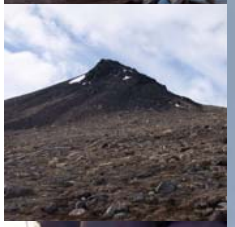
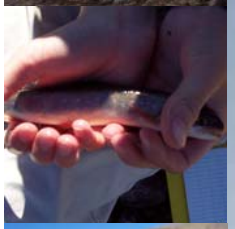


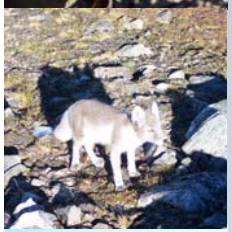
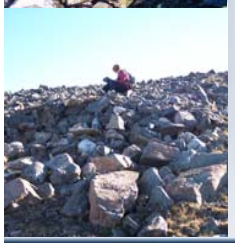
Mary River Project – Highlights

- Large high-grade iron ore deposits discovered in 1960s
- Baffinland Iron Mines Corporation (BIMC) started exploration in 2004
- Environmental studies, including Inuit Qaujimajatuqangit (IQ) studies underway since 2005
- Scoping Study completed in May 2006
- Feasibility Study underway, targets late 2007 completion
- Bulk sampling program proposed for 2007/08
- Aim for late 2007 submission of Project Description to begin regulatory processes

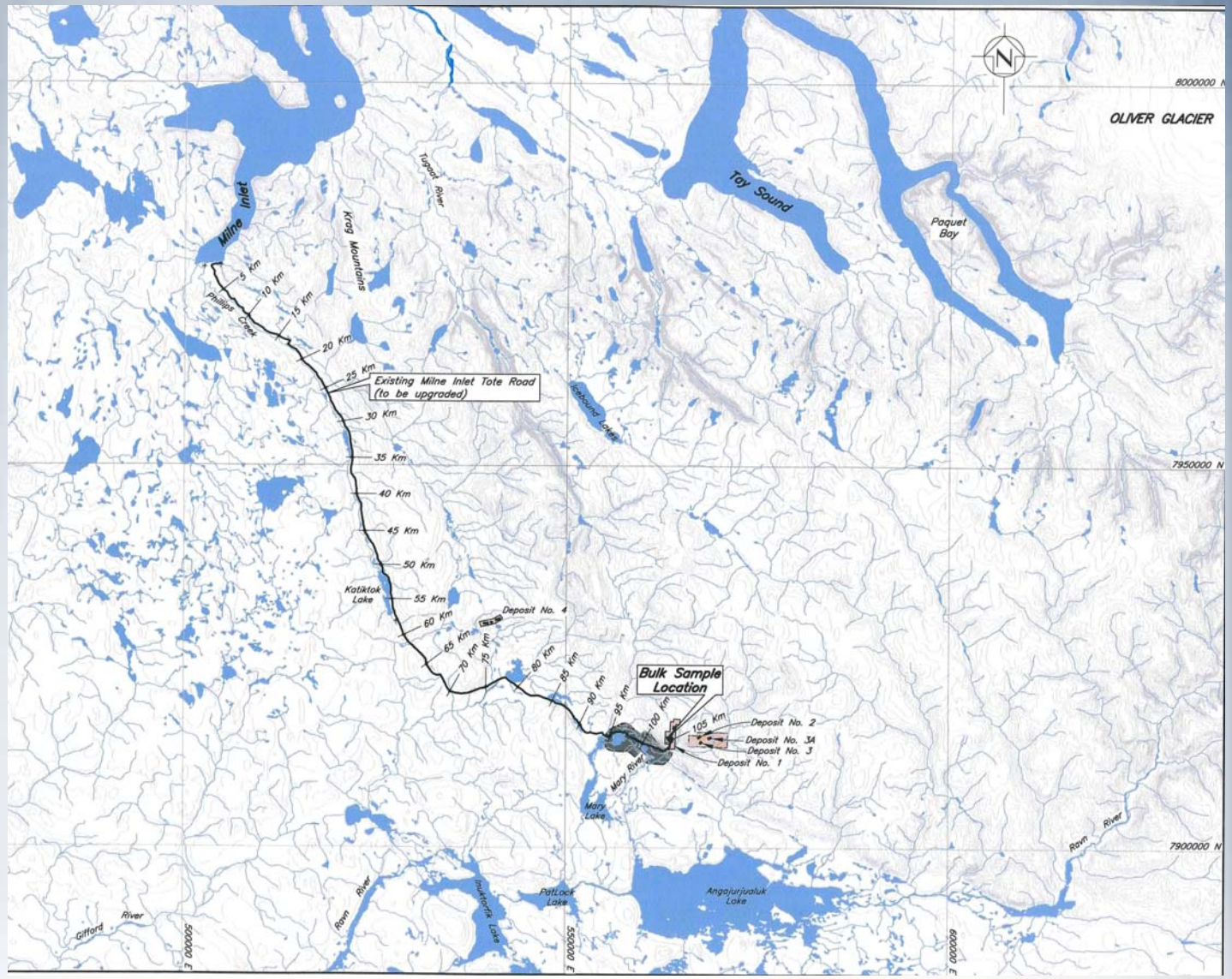
Consultation

- With the community of Pond Inlet since 2004
- Approximately 30 employees from Pond Inlet
- Public meetings held in Pond Inlet each year; last public meeting was April 16, 2006
- February 2006 - Baffinland/Knight Piesold established a 7-member Inuit Qaujimajatqangit (IQ) working group, “Pisiksik”
- Late August 2006 – Pisiksik working group will visit Mary River
- September 2006 - a public meeting proposed in Pond Inlet in along with the Qikiqtani Inuit Association, to discuss bulk sampling program

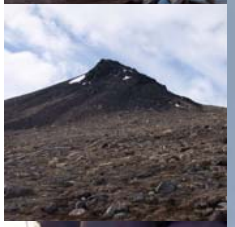
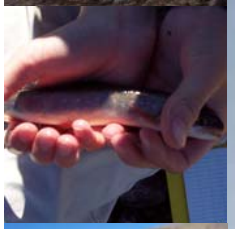



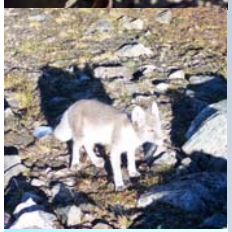
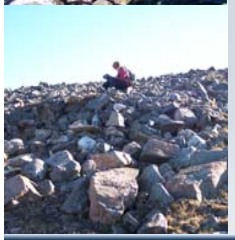
Existing Facilities



Milne Inlet Road

- The existing approx. 100-km road (Tote Road) is identified in the Nunavut Land Claim Agreement as a public access road
- Existing road has a number of abandoned culverts, either corrugated steel pipe or drum-culverts. Crossings are in various states of disrepair, or have been completely washed out.
- Baffinland's current water license allows for use as a winter road (March to May)
- Road upgrades required to support ore haul trucks
- July 2006 – preliminary engineering investigation of road conditions
- Detailed plan to upgrade the road will be developed in accordance with the requirements of Nunavut regulatory agencies
- Road to be upgraded in stages with gradual improvement up to the commencement of bulk sample haulage

Typical Conditions of Existing Tote Road

Bulk Sampling Program - Purpose

- Demonstrate to potential long-term customers the quality of Mary River ore in their blast furnace processes
- Provide 5 potential customers with 1-month each of production feed (250,000 t ore)
- Provide data sufficient to negotiate marketing contracts with several customers
- Marketing contracts will support project financing

Bulk Sampling Program - Overview

- Mine representative samples from two ore types (hematite and magnetite) from two shallow pits within Deposit No. 1
- Transport bulk sample ore over upgraded road to Milne Inlet
- Stockpile ore at Milne Inlet; load 4 - 40,000 t bulk carriers using a ship loader and portable conveyors
- Expand existing tent camp at Mary River; construct temporary camps at Milne Inlet and mid-way along road
- Install supporting infrastructure (i.e., fuel storage, airstrip lighting, etc.)
- Upgrade existing Milne Inlet Tote Road to all-weather capability to support haul traffic

Bulk Sampling Program - Schedule

2006

- Q4 – consultation, submit permit applications

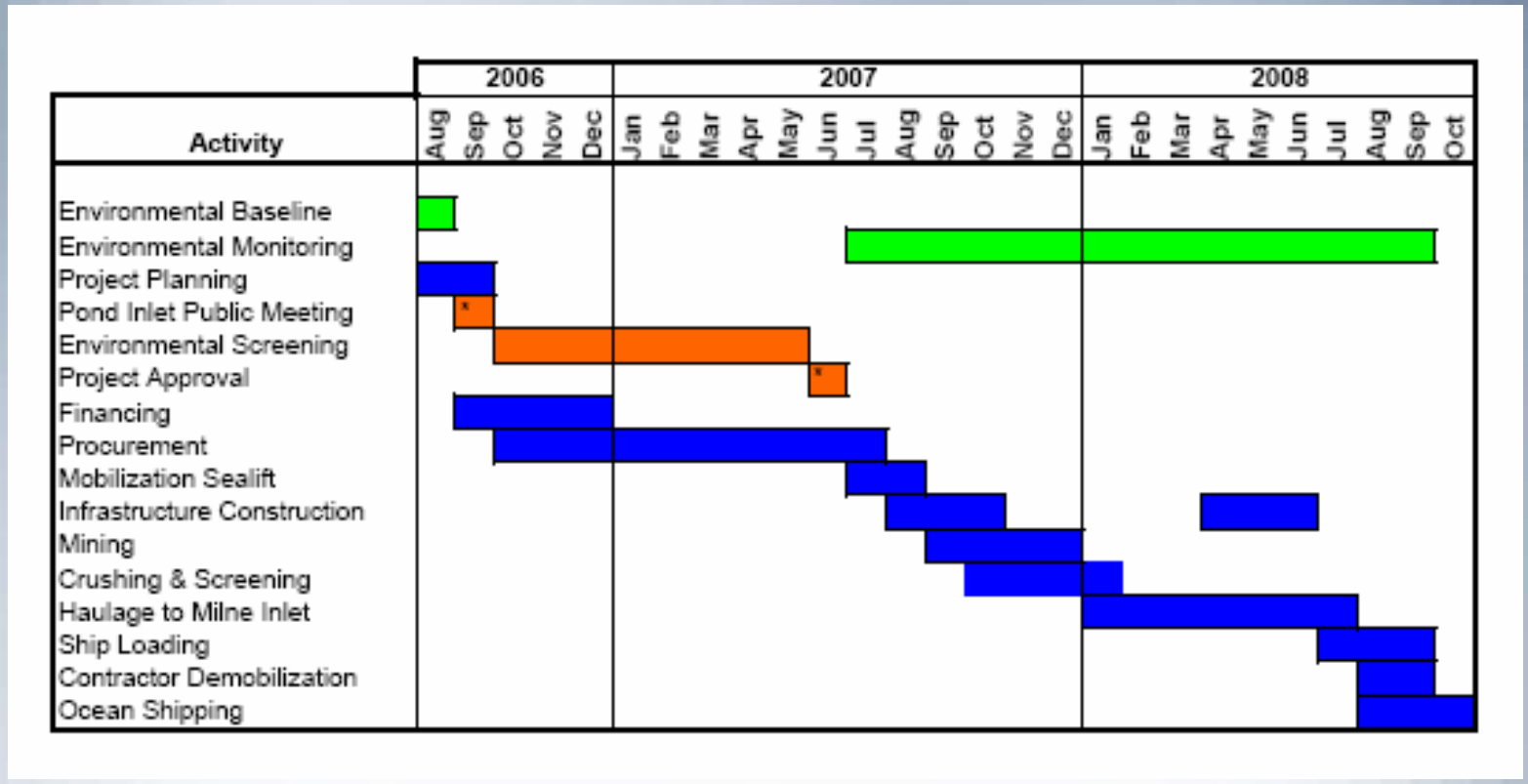
2007

- Q1-Q2 – permitting process completed
- Q3 – initiate road upgrades
- Q4 – mobilize equipment & materials, construct infrastructure, start mining & crushing

2008

- Q1-Q3 – continue mining and crushing bulk sample; haul bulk sample to Milne Inlet
- Q3 – ship ore to steelmakers; demobilization

Bulk Sampling Program - Schedule



Mary River - Temporary Facilities

- Construct new 100-person tent camp adjacent existing camp, equipped for year-round use
- Other infrastructure upgrades: 400 kW generator, radio tower, maintenance shop, sea container warehousing
- Air access improvements – airstrip grading and lighting; heli-pad
- Fuel storage – 2 locations each with 1.25 million litres diesel in 10 bladder tanks, within lined containment
- Installation of mining equipment, including trucks, drills, portable crusher, screens, explosives magazines

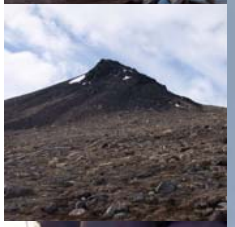
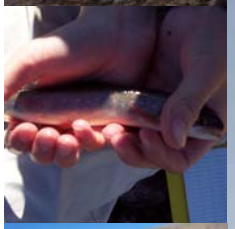
Consumables

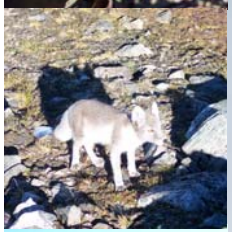
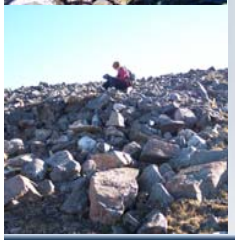
Fuel

- 6.5 million litres diesel; bladder tanks within lined containment facilities at Mary River, a halfway camp and Milne Inlet

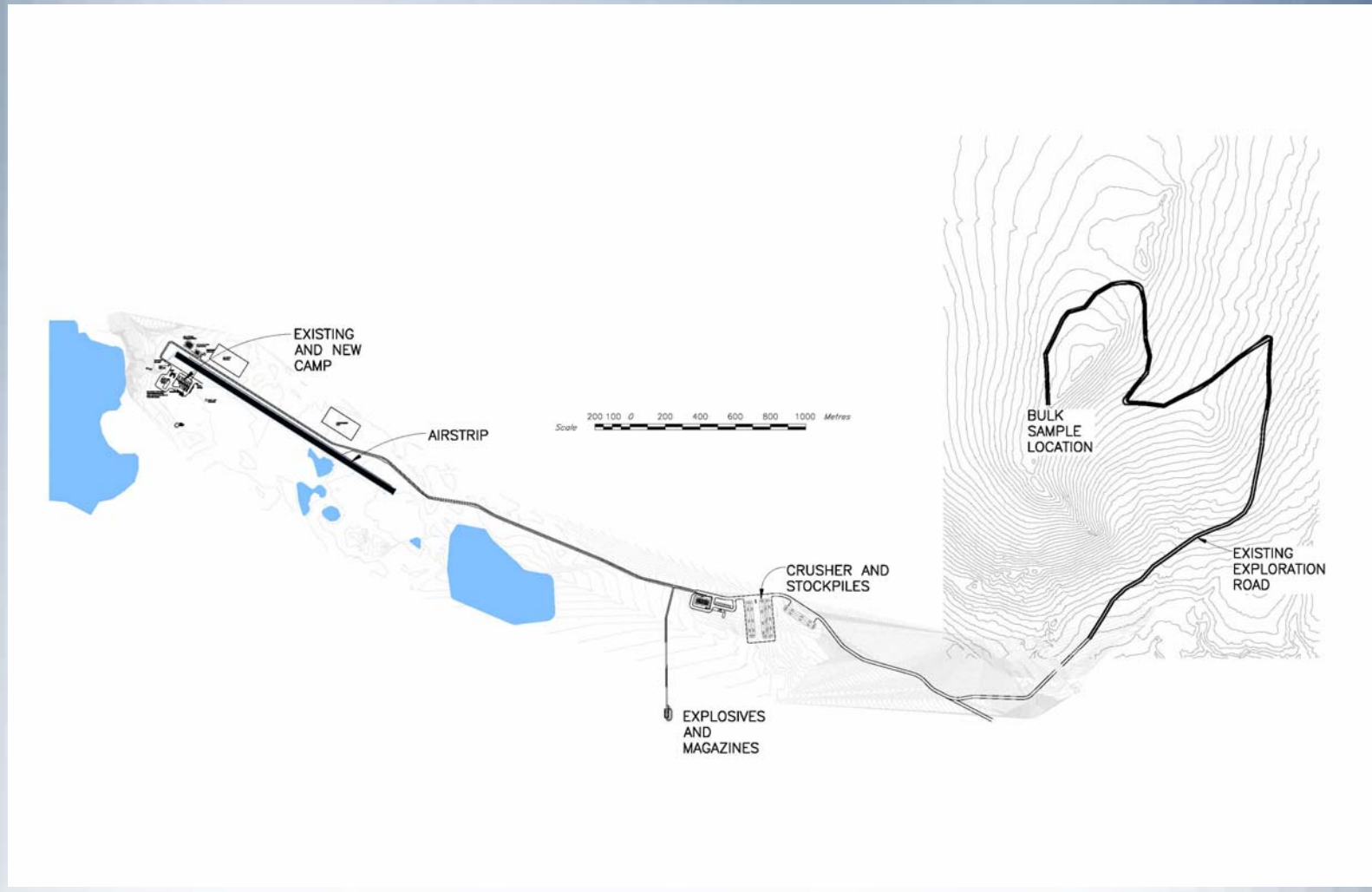
Explosives

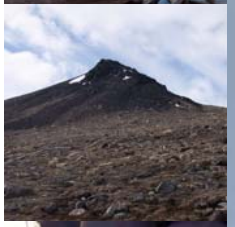
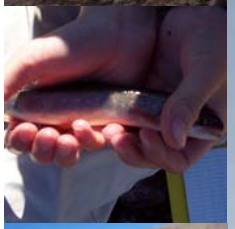
- Pre-packaged emulsion and high explosives (Class A)
- 240 t in 16 explosives magazines; following applicable setback distances

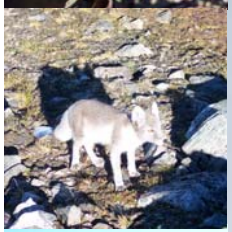
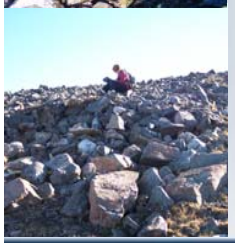




Mary River - Layout

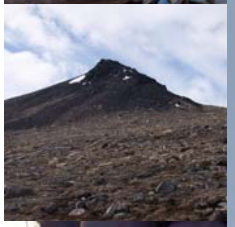
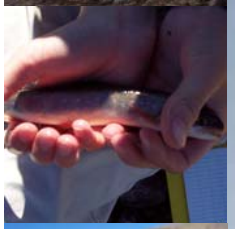


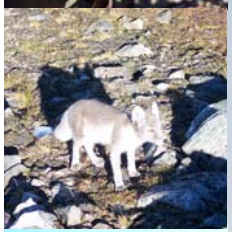
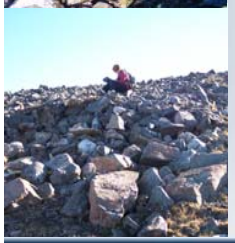




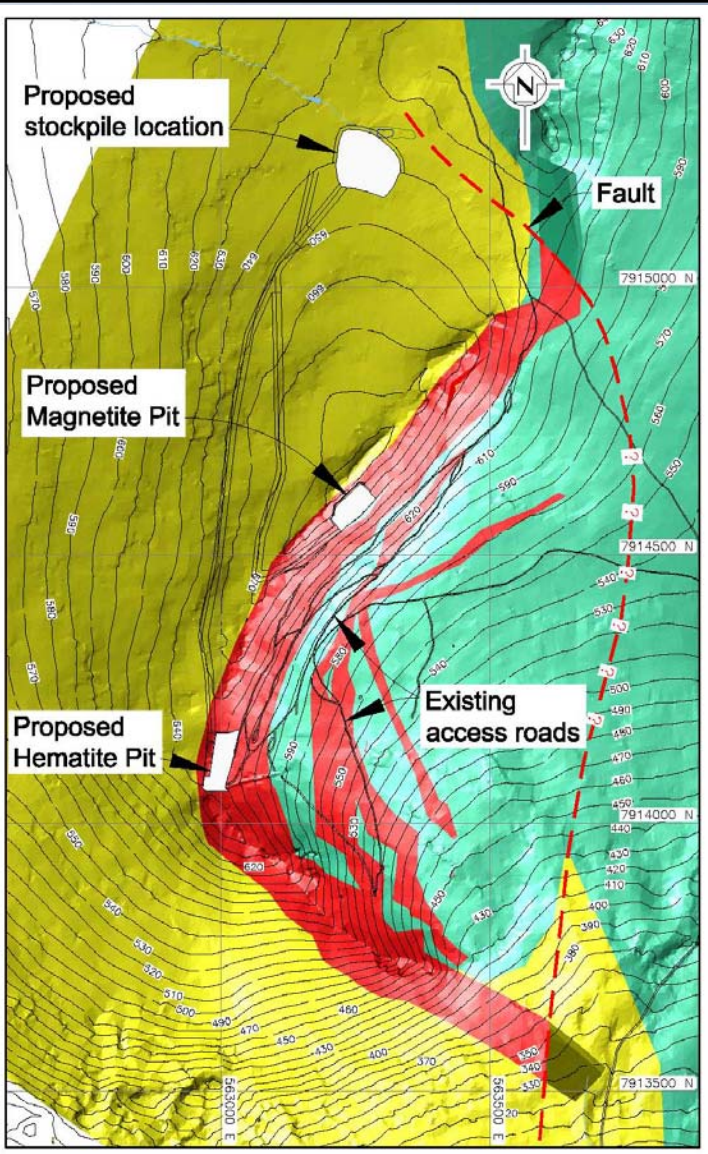
Mary River Site Layout – Camp Area

Mary River Site Layout – Crusher Area

Bulk Sample Location

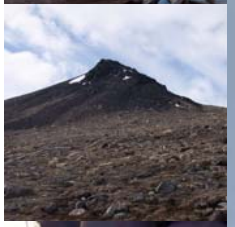
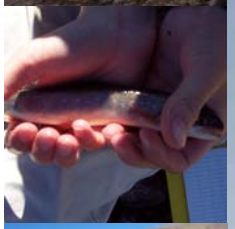


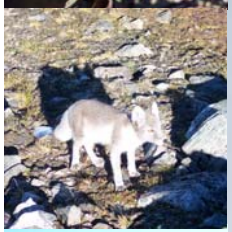
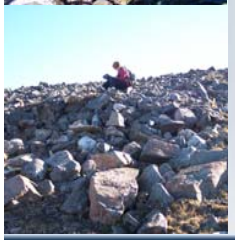
Bulk Sampling Program – Mine Plan

- Mine approx. 250,000 t of freshly blasted ore from two small pits
- Hematite pit (125,000 t) and Magnetite pit (125,000 t)
- Blast in 10-m lifts using pre-packaged explosives; excavate rock in 5-m lifts
- Stockpile freshly ore temporarily at temporary crusher
- Low volume of waste rock (15,000 t) stockpiled adjacent pits
- About 170,000 t of weathered ore stockpiled adjacent to the pits
- 6.5 km road to be constructed between pits and crusher
- Mining to be conducted by an experienced mining contractor

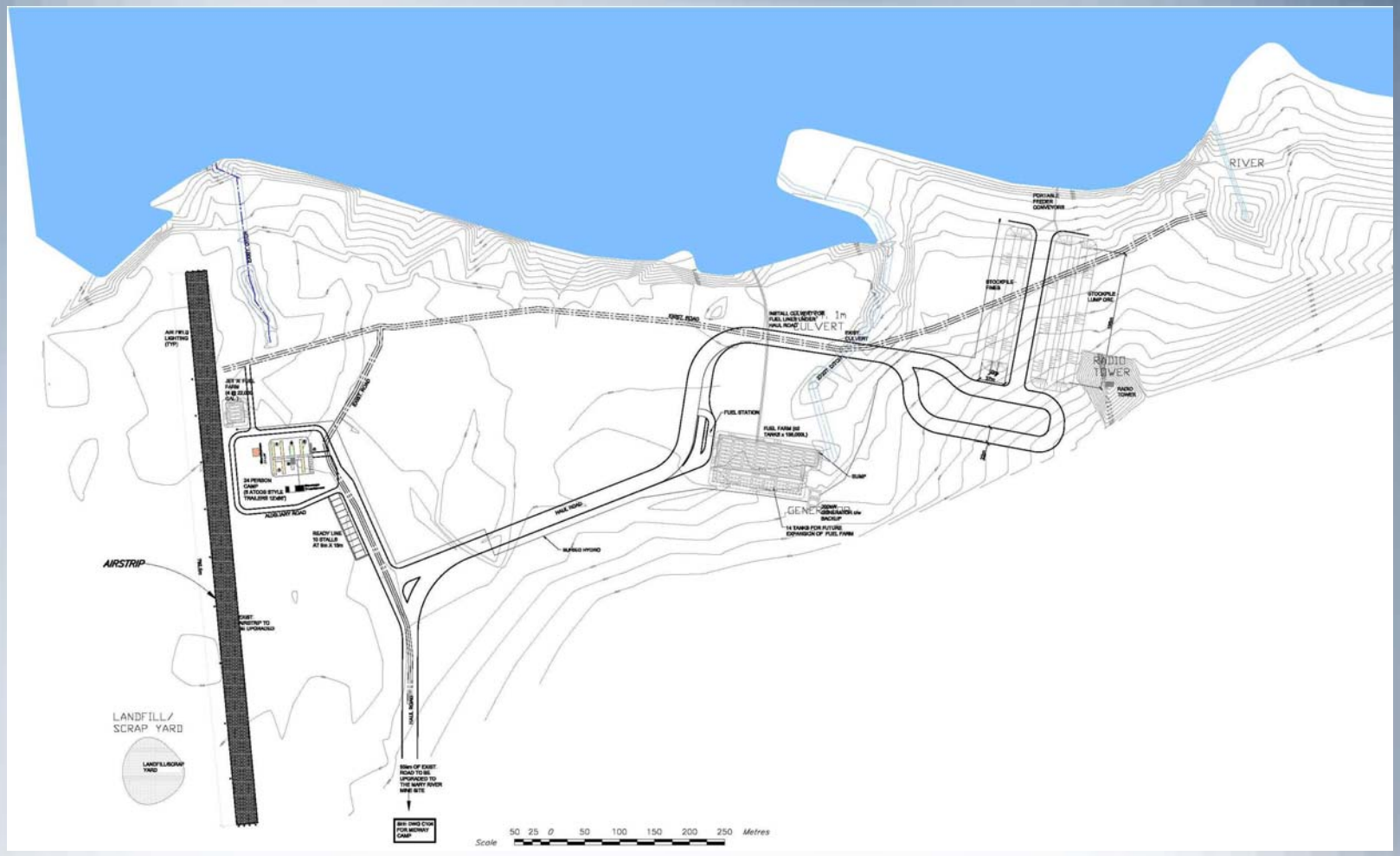
Milne Inlet - Temporary Facilities

- Install 30-person trailer camp
- Power supply – 200 kW diesel generator
- Fuel storage - 6.5 million litres; 52 bladder tanks in lined containment
- Ore stockpiles - lump ore + ore fines
- Laydown area (at ore stockpile location)
- Portable conveyors, ship loader, hopper
- Airstrip lighting at existing airstrip
- Heli-pad, communication tower

Milne Inlet - Layout



Half-way Camp

- A temporary camp will be constructed along the road route next to an existing airstrip
- Will service road traffic and respond to any emergencies
- ATCO trailer style, 24-person capacity
- Fuel storage – 274,000 litres within several bladder tanks in lined containment

Milne Inlet Road Investigations

- On-site review and documentation of existing road conditions was carried out in late June to early July 2006.
- The work completed included:
  - Fly-over of route to document the general conditions along the existing Tote Road and to identify areas of concern to be reviewed in more detail on ground.
  - On-ground survey - preliminary identification and classification of water crossings, roads foundation conditions and potential borrow materials
  - Photographic documentation, GPS mapping and soil sample collection and geotechnical testing

Proposed Road Upgrades

Road will be upgraded to allow travel by haul trucks over the majority of the year.

Proposed upgrades/components include:

(1) Road bed widening to accommodate one-way traffic

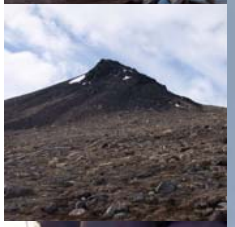
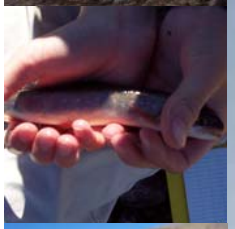
(2) Placement of engineered fill (compacted sand and gravel) to provide an adequate surface for travel and maintenance (i.e. snow clearing and grading)

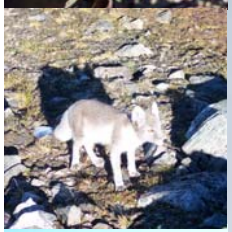
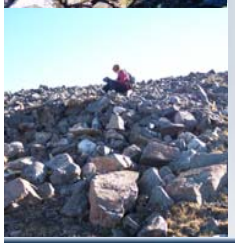
(3) In areas of low bearing capacity soils, fill thickness will increase significantly to provide suitable bearing structure and to minimize thawing of thaw-susceptible soils in existing active layer

(4) Removal (replacement) of existing culvert and barrel-culverts and other historical debris

(5) Installation/replacement of culverts at water crossings

(6) Construction of turnout/passing areas along the route

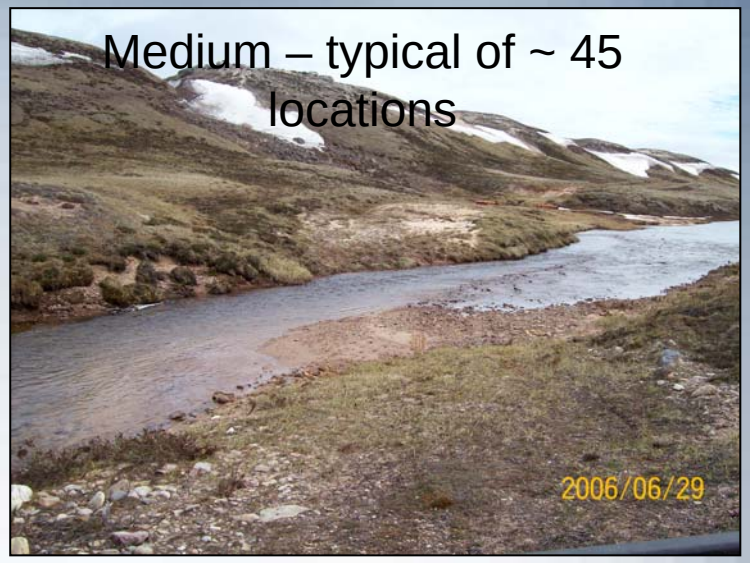




Typical Areas Requiring Culverts

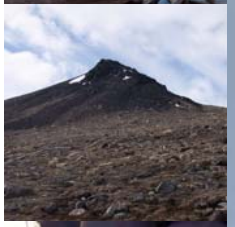
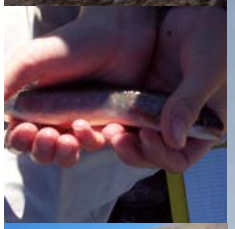
Small – typical of ~ 40 locations

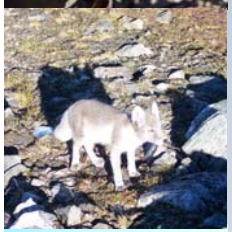
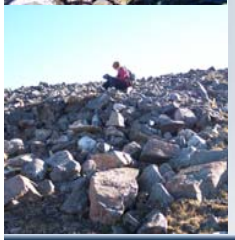
Medium – typical of ~ 45 locations



Large – typical of ~ 10 locations

Very Large – typical of ~ 10 locations

Major Water Crossings



Major Water Crossings – typical of ~ 5 locations

Required Permits

Nunavut Water Board

- Water license - water use/waste disposal (NLCA Article 13)

Government of Nunavut

- Explosives Use Act Permit

Qikiqtani Inuit Association

- Lease on Inuit Owned Lands (NLCA Article 21)
- Quarry (Aggregate) license

Government of Canada

- *Fisheries Act* authorizations
- *Navigable Waters Protection Act* - exemption/approval
- *Territorial Lands Act* – land use leases and permits, quarry lease/permit
- *Environmental Protection Act* – spill contingency plan

Regulatory Processes

- Nunavut Planning Commission review for compliance with the regional land use plan
- Nunavut Impact Review Board screening required before new/amended permits are obtained
- Screening pursuant to the *Canadian Environmental Assessment Act* before issuance of federal permits
- Individual permits will be issued by the respective regulatory bodies once the screenings have been completed
- Baffinland has planned for 8 months (Oct 06 through May 07) for screening and permitting processes

Focused Environmental Baseline Studies

Environmental baseline studies modified to support bulk sampling program:

- archaeology
- vegetation
- fisheries
- carnivore surveys of potential aggregate sources, and
- rock geochemistry testing of bulk sample materials

Baseline information will be compiled in an environmental screening document

Man Power Requirements for Bulk Sample

Company	Average	Peak
Baffinland	6	12
Road contractor	7	7
Mining contractor	40	50
Catering/others	12	20
Total	65	89

- Crew schedule 6 weeks on-site, 2 weeks off site
- Charter service from Iqaluit 3x/week
- Two 12-hour work shifts per day

Training Opportunities

- The bulk sampling program is an excellent training venue for a future mine
- A human resources policy will be developed for the bulk sampling program, formalizing and enhancing Baffinland's existing practices
- A training program will be implemented in consultation with the community and, where possible, in collaboration with applicable agencies
- Training program is expected to include both in-community and on-site components

Health & Safety

- Baffinland is developing a health & safety policy
- The current health & safety plan will be revised to meet corporate policy
- Contractors are required to submit their health & safety plans to Baffinland
- A health & safety officer will inspect operations; external audits may be conducted

Environmental Management Plans

- Emergency response and spill contingency plan
  - Protocols for fuel transfer
  - Regular inspections
  - Spill response equipment
  - Reporting and response plans
- Monitoring plan
  - Sediment and erosion control measures during construction
  - On-site supervision during in-water work (fisheries authorizations)
  - Water and effluent monitoring for water use and waste disposal
  - Monitoring drainage from stockpiles if rock geochemistry results indicate it may be required
- Abandonment and reclamation plan
  - Removal of equipment and hazardous materials
  - Burial of inert wastes on-site
  - Re-grading of disturbed areas; sediment and erosion control
  - Removal of culverts to restore natural drainage
  - Follow-up monitoring

Questions?